

Express Mail No. EJ806519555US

Case Docket No. CHR 99-9

What is claimed is:

1. A paperboard useful in paper-based packages or containers for holding liquids or solids comprising a sub-surface layer of an adsorbent material to reduce inherent board odor with essentially no reduction in strength of the parent board.
2. The paperboard of claim 1 wherein the adsorbent is selected from the group consisting of activated carbon, zeolite, and cyclodextrins.
3. The paperboard of claim 2 wherein the adsorbent is an activated carbon selected from the group consisting of granular, powdered, pelletized, and fiberized activated carbons, and combinations thereof.
4. The paperboard of claim 2 wherein the adsorbent is present in the board at a concentration above 0.1 weight % of the board.
5. The paperboard of claim 1 wherein the adsorbent is applied to the board using an air atomized spray.
6. The paperboard of claim 1 wherein the adsorbent is applied to the board using equipment selected from the group consisting of a curtain coater, a size press, a blade coater, and a headbox.

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7. The paperboard of claim 1 further comprised of a single layer of paperboard.
8. The paperboard of claim 1 further comprising multiple layers of paperboard including a topmost layer and a layer positioned immediately below the topmost layer.
9. The paperboard of claim 8 wherein the sub-surface layer of an adsorbent material is located in the layer positioned immediately below the topmost layer.
10. A method of preparing paperboard produced from pulp stock and useful in paper-based packages or containers for holding liquids or solids comprising adding an adsorbent material to the pulp stock to provide a sub-surface layer of said adsorbent material within the paperboard.
11. The method of claim 10 wherein the adsorbent addition to the paperboard adsorbs the undesired odors emitted from polymer- and pigment-based additives employed in the conversion of the paperboard into a packaging or a container product.
12. The method of claim 10 wherein the adsorbent is added in combination with an oxidant.
13. The method of claim 12 wherein the oxidant is hydrogen peroxide.

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14. The method of claim 10 wherein the adsorbent is added in combination with an antioxidant.
15. The method of claim 10 wherein the paperboard is formed of a single layer of the pulp stock.
16. The method of claim 10 wherein the paperboard is formed of multiple layers of the pulp stock including a topmost layer and a layer positioned immediately below the topmost layer.
17. The method of claim 16 wherein the sub-surface layer of the adsorbent material is added to the pulp stock which forms the layer positioned immediately below the topmost layer.